

UNITED STATES DISTRICT COURT
SOUTHERN DISTRICT OF NEW YORK

Microsoft Licensing GP,

Plaintiff,

-against-

Yulong Computer Telecommunication
Scientific (Shenzhen) Co., Ltd.,

Defendant.

No. 1:15-cv-05014-KBF

SUPPLEMENTAL DECLARATION OF EXPERT NIKOLAUS BAER

I. Introduction

1. I have been retained by Orrick, Herrington, & Sutcliffe LLP in connection with the matter of *Microsoft Licensing GP v. Yulong Computer Telecommunications Scientific (Shenzhen) Co., Ltd.*, No. 1:15-cv-05014-KBF. I have been asked to review the Declaration of Dr. Striegel submitted on June 3rd, 2016, and my response is below. My experience and compensation can be found in my original Declaration submitted on May 6th, 2016.
2. I have personal knowledge of the facts set forth in this Declaration and, if called to testify as a witness, could and would competently testify to them under oath.

II. Exchange ActiveSync can be detected

3. In his Declaration, Dr. Striegel does not refute my conclusion, set forth in my initial Declaration, that Exchange ActiveSync can be readily detected on mobile devices running the Android mobile operating system (“Android”).
4. Instead of addressing the detectability of Exchange ActiveSync on Android mobile devices, Dr. Stiegel focused on tangential subjects, such as decompilation, differences between versions of Exchange ActiveSync implementations in Android, and the feature sets involved in those versions, which I will address below.

III. Decompilation

5. In my initial Declaration, I not only identified the Android application packages (“APK”) file that includes the Exchange ActiveSync implementation on the Coolpad Quattro device, **CP_Email.apk**, but also extracted the file from the Coolpad Quattro and decompiled it. Nowhere in his Declaration does Dr. Striegel contest that the decompiled

source code corresponds with the implementations of Exchange ActiveSync provided by Google, Inc.

6. Dr. Striegel does address decompilation in general. One can think about the compilation and decompilation of source code as the translation of a book from one language to another and then back to the original language. At the end of these translations, every single word may not be identical, but the story remains. Likewise, the cycle of compilation and decompilation may not produce the source code with every single word in the exact same position, but the functionality remains and the decompiled source code can still be correlated to the original source code.

IV. Versions

7. My comparison with the Exchange ActiveSync implementation provided by Google, Inc. not only showed the correlations between the implementation of Exchange ActiveSync on the Coolpad Quattro and the implementations found in the open source versions of Android, but also demonstrated that this implementation is ongoing through multiple versions of Android, such as version 4.4. Nowhere in his Declaration does Dr. Striegel contest that Android 2.3.7 (the version of Android on the Coolpad Quattro that I analyzed) or Android 4.4 include implementations of Exchange ActiveSync.
8. The correlation between the decompiled files and the Exchange ActiveSync implementation contained in Android version 4.4. also exists in Android version 2.3.7. For example, the source code file **EAS.java** found in the decompiled files from the Coolpad Quattro is also found in the open source reference version of Android version 2.3.7. In fact, every Java source code file in the **exchange** directory (*i.e.* the directory in which the code related to Exchange ActiveSync resides in the open source version of

Android version 2.3.7) matches a Java source code file in the decompiled code. This is shown in Appendix B, which is a side-by-side comparison of the Java source code files in the **exchange** directory from the open source reference version of Android version 2.3.7 on the right with the Java source code files in the **exchange** directory from the decompilation on the left. Every file from Google, Inc. on the right matches a file from the decompiled source code on the left.

9. Furthermore, the source code for Android has included implementations of Exchange ActiveSync since the release of version 2.0 in October 2009, as illustrated in Table 1.

| Version | Initial release date ¹ | Location of Exchange ActiveSync implementation |
|----------------------------|---|---|
| 2.0 (Éclair) | October 2009 | https://android.googlesource.com/platform/packages/apps/Email/+android-2.0_r1/src/com/android/exchange |
| 2.2 (Froyo) | May 2010 | https://android.googlesource.com/platform/packages/apps/Email/+android-2.2_r1/src/com/android/exchange/ |
| 2.3 (Gingerbread) | December 2010 | https://android.googlesource.com/platform/packages/apps/Email/+android-2.3_r1/src/com/android/exchange/ |
| 3.0 (Honeycomb) | Designed for tablets and Google, Inc. has removed online access to source code ² | |
| 4.0.1 (Ice Cream Sandwich) | October 2011 | https://android.googlesource.com/platform/packages/apps/Exchange/+android-4.0.1_r1/src/com/android/exchange |
| 4.1.1 (Jelly Bean) | July 2012 | https://android.googlesource.com/platform/packages/apps/Exchange/+android-4.1.1_r1/exchange2/src/com/android/exchange |
| 4.4 (KitKat) | October 2013 | https://android.googlesource.com/platform/packages/apps/Exchange/+android-4.4_r1/src/com/android/exchange/ |
| 5.0 (Lollipop) | October 2014 | https://android.googlesource.com/platform/packages/apps/Exchange/+android-5.0.0_r1/src/com/android/exchange |
| 6.0 (Marshmallow) | October 2015 | https://android.googlesource.com/platform/packages/apps/Exchange/+android-6.0.0_r1/src/com/android/exchange |

Table 1. Android release dates and Exchange ActiveSync source code locations

¹ “Android Platform.” SocialCompare.com. Web June 8, 2016.

<<http://socialcompare.com/en/comparison/android-versions-comparison>>

² “Google closes Android 3.0 Honeycomb source to prevent use on smartphones.” Appleinsider.com. Web Jun 8, 2016.

V. Feature Sets

10. The Declaration of Dr. Striegel also discusses some features of the Exchange ActiveSync protocol.

A. Code Pages

11. Section VIII.B.2 of the Declaration by Dr. Striegel discusses code pages. Code pages simply map human readable XML tags with less verbose and therefore more efficient Wireless Application Protocol (“WAP”) Binary XML (“WBXML”) numeric tokens³. These code pages are listed in Table 2 of paragraph 49 of Dr. Striegel’s Declaration. However, Figure 8 of paragraph 51 of Dr. Striegel’s Declaration and the corresponding discussion skip hundreds of lines of code page implementation. For example, the source code in Figure 8 of paragraph 51 of Dr. Striegel’s Declaration skips from line 17 to line 442. When the full file, attached as Appendix C, is examined, it is clear that these hundreds of lines implement many of the code pages listed in Table 2 of Dr. Striegel’s Declaration, such as AirSync, Contacts, Email, Calendar, Task, and Ping.

B. Flags

12. The discussion of flags in section VIII.B.4 of the Declaration by Dr. Striegel is incorrect. The flag feature is included. The source code from **EmailSyncAdapter.java**⁴ is shown in Figure 1, with the lines immediately preceding and following the snippet shown in Figure

<http://appleinsider.com/articles/11/03/24/google_closes_android_3_0_honeycomb_source_to_prevent_use_on_smartphones>

³ “[MS-ASWBXML]: Exchange ActiveSync: WAP Binary XML (WBXML) Algorithm.” Microsoft Developer Network. Web June 7, 2016. <[https://msdn.microsoft.com/en-us/library/ee178995\(v=exchg.80\).aspx#gt_e4c66ae5-4c5e-4481-9c78-190762a37db1](https://msdn.microsoft.com/en-us/library/ee178995(v=exchg.80).aspx#gt_e4c66ae5-4c5e-4481-9c78-190762a37db1)>

⁴ Blank, M (2008-2009) Android Exchange EmailSyncAdapter.java [Computer Program]. Google, Inc. Web June, 7, 2016. <https://android.googlesource.com/platform/packages/apps/Email/+/_android-2.0_r1/src/com/android/exchange/adapter/EmailSyncAdapter.java>

11 and 12 of Dr. Striegel's Declaration⁵. The source code actually sets default values for the flag element **Flag.Status** as **EMAIL_FLAG_STATUS** at line 682, **Flag.FlagType** as **EMAIL_FLAG_TYPE** at line 682, **Flag.StartDate** as **TASK_START_DATE** and **Flag.UTCStartDate** as **TASK.UTC_START_DATE** at line 692, and **Flag.DueDate** **TASK_DUE_DATE** and **Flag.UTCDueDate** as **TASK.UTC_DUE_DATE** at line 696. The setting of these four flags shows that flags are included in the open source reference version of Android version 2.0. As such, the proceeding comment at lines 676 - 678

```
EAS 12.0 and higher require that a flag contain a status,  
a type, and four date fields, two each for start date and  
end (due) date.
```

means that whether or not this implementation makes full use of these flags, the source code was implemented to set the flags for interoperability with Exchange servers.

⁵ Note that Figure 11 Striegel's Declaration references version 2.0, but the same lines of code also exist in version 2.3.7.

```

657         if (!flagChange && !readChange) {
658             // In this case, we've got nothing to send to the server
659             continue;
660         }
661
662         if (first) {
663             s.start(Tags.SYNC_COMMANDS);
664             first = false;
665         }
666         // Send the change to "read" and "favorite" (flagged)
667         s.start(Tags.SYNC_CHANGE)
668             .data(Tags.SYNC_SERVER_ID, c.getString(Message.LIST_SERVER_ID_COLUMN))
669             .start(Tags.SYNC_APPLICATION_DATA);
670         if (readChange) {
671             s.data(Tags.EMAIL_READ, Integer.toString(read));
672         }
673         // "Flag" is a relatively complex concept in EAS 12.0 and above. It is not only
674         // the boolean "favorite" that we think of in Gmail, but it also represents a
675         // follow up action, which can include a subject, start and due dates, and even
676         // recurrences. We don't support any of this as yet, but EAS 12.0 and higher
677         // require that a flag contain a status, a type, and four date fields, two each
678         // for start date and end (due) date.
679         if (flagChange) {
680             if (flag != 0) {
681                 // Status 2 = set flag
682                 s.start(Tags.EMAIL_FLAG).data(Tags.EMAIL_FLAG_STATUS, "2");
683                 // "FollowUp" is the standard type
684                 s.data(Tags.EMAIL_FLAG_TYPE, "FollowUp");
685                 long now = System.currentTimeMillis();
686                 Calendar calendar =
687                     GregorianCalendar.getInstance(TimeZone.getTimeZone("GMT"));
688                 calendar.setTimeInMillis(now);
689                 // Flags are required to have a start date and end date (duplicated)
690                 // First, we'll set the current date/time in GMT as the start time
691                 String utc = formatDateTime(calendar);
692                 s.data(Tags.TASK_START_DATE, utc).data(Tags.TASK_UTC_START_DATE, utc);
693                 // And then we'll use one week from today for completion date
694                 calendar.setTimeInMillis(now + 1*WEEKS);
695                 utc = formatDateTime(calendar);
696                 s.data(Tags.TASK_DUE_DATE, utc).data(Tags.TASK_UTC_DUE_DATE, utc);
697                 s.end();
698             } else {
699                 s.tag(Tags.EMAIL_FLAG);
700             }

```

Figure 1. Lines 657 – 700 of EmailSyncAdapter.java from version 2.0

13. I understand that additional materials may be produced. I therefore reserve the right to supplement or amend my opinion, as expressed in this Declaration, following the production of additional materials and further analysis of the current or additional materials.

I declare under penalty of perjury that the foregoing is true and correct.

Executed on June 9, 2016 in Mountain View, CA.

A handwritten signature in black ink, appearing to read 'Nikolaus Baer', is written over a horizontal line.

Nikolaus Baer

Appendix A: Materials Considered

1. Yulong Coolpad Quattro 4G 5860E purchased through the Amazon marketplace
2. Blank, M (2008-2009) Android Exchange [Computer Program]. Google, Inc. Web May, 5, 2016. <https://android.googlesource.com/platform/packages/apps/Exchange/+/master/src/com/android/exchange>
3. "Microsoft Exchange Information Services and Security Policies Supported by Android 2.2 and 2.3." Google, Inc. Web May, 5, 2016. <http://static.googleusercontent.com/media/www.google.com/en//help/hc/pdfs/mobile/ExchangeAndAndroid2.2and2.3-003.pdf>
4. "Setting up an Android Based Phone with ActiveSync." The University of Queensland. Web May, 5, 2016. <https://www.its.uq.edu.au/helpdesk/setting-android-based-phone-activesync>
5. "Android Exchange Active Sync Setup" Protected Trust, LLC. Web May, 5, 2016. <https://protectedtrust.com/knowledgebase/android-exchange-active-sync-setup/>
6. "Google Android 2.3.7 Simplified operating system datasheet" PDADB.net. Web. 05 May 2016. http://pdadb.net/index.php?m=os&id=a237&c=google_android_2.3.7
7. File Explorer from NextApp, Inc. Web May, 5, 2016. <https://play.google.com/store/apps/details?id=nextapp.fx&hl=en>
8. Virtuous Ten Studio (VTS). Web May, 4, 2016. <http://virtuous-ten-studio.com/>
9. Blank, M (2008-2009) Android Exchange EAS.java [Computer Program]. Google, Inc. Web May, 5, 2016. https://android.googlesource.com/platform/packages/apps/Exchange/+/android-4.4_r1/src/com/android/exchange/Eas.java
10. Android Exchange strings.xml [Computer Program]. Google, Inc. Web May, 5, 2016. <https://android.googlesource.com/platform/packages/apps/Email/+/178e51fcd81e0ec1abd3a0990620623099d5b4f3/res/values-el/strings.xml>
11. Android Exchange patent_disclaimer.txt [Computer Program]. Google, Inc. Web May, 5, 2016. https://android.googlesource.com/platform/packages/apps/Exchange/+/android-4.4_r1/src/com/android/exchange/patent_disclaimer.txt
12. The Declaration of Dr. Striegel submitted on June 3rd, 2016
13. The Declaration of Nikolaus Baer submitted on May 6th, 2016
14. Blank, M (2008-2009) Android Exchange 2.0 [Computer Program]. Google, Inc. Web June, 8, 2016. https://android.googlesource.com/platform/packages/apps/Email/+/android-2.0_r1/src/com/android/exchange
15. Blank, M (2008-2009) Android Exchange 2.2 [Computer Program]. Google, Inc. Web June, 8, 2016. https://android.googlesource.com/platform/packages/apps/Email/+/android-2.2_r1/src/com/android/exchange/
16. Blank, M (2008-2009) Android Exchange 2.3 [Computer Program]. Google, Inc. Web June, 8, 2016. https://android.googlesource.com/platform/packages/apps/Email/+/android-2.3_r1/src/com/android/exchange
17. Blank, M (2008-2009) Android Exchange 4.0.1 [Computer Program]. Google, Inc. Web June, 8, 2016. https://android.googlesource.com/platform/packages/apps/Exchange/+/android-4.0.1_r1/src/com/android/exchange

18. Blank, M (2008-2009) Android Exchange 4.1.1 [Computer Program]. Google, Inc. Web June, 8, 2016. < https://android.googlesource.com/platform/packages/apps/Exchange/+/android-4.1.1_r1/exchange2/src/com/android/exchange>
19. Blank, M (2008-2009) Android Exchange 4.4 [Computer Program]. Google, Inc. Web June, 8, 2016. < https://android.googlesource.com/platform/packages/apps/Exchange/+/android-4.4_r1/src/com/android/exchange/>
20. Blank, M (2008-2009) Android Exchange 5.0 [Computer Program]. Google, Inc. Web June, 8, 2016. <https://android.googlesource.com/platform/packages/apps/Exchange/+/android-5.0.0_r1/src/com/android/exchange>
21. Blank, M (2008-2009) Android Exchange 6.0 [Computer Program]. Google, Inc. Web June, 8, 2016. <https://android.googlesource.com/platform/packages/apps/Exchange/+/android-6.0.0_r1/src/com/android/exchange>
22. “Android Platform.” SocialCompare.com. Web June 8, 2016.
<<http://socialcompare.com/en/comparison/android-versions-comparison>>
23. “Google closes Android 3.0 Honeycomb source to prevent use on smartphones.” Appleinsider.com. Web Jun 8, 2016.
<http://appleinsider.com/articles/11/03/24/google_closes_android_3_0_honeycomb_source_to_pr_event_use_on_smartphones>
24. “[MS-ASWBXML]: Exchange ActiveSync: WAP Binary XML (WBXML) Algorithm.” Microsoft Developer Network. Web June 7, 2016. <[https://msdn.microsoft.com/en-us/library/ee178995\(v=exchg.80\).aspx#gt_e4c66ae5-4c5e-4481-9c78-190762a37db1](https://msdn.microsoft.com/en-us/library/ee178995(v=exchg.80).aspx#gt_e4c66ae5-4c5e-4481-9c78-190762a37db1)>
25. “[MS-ASEMAIL]: Exchange ActiveSync: Email Class Protocol.” Microsoft Developer Network. Web June 8, 2016. <[https://msdn.microsoft.com/en-us/library/dd299457\(v=exchg.80\).aspx](https://msdn.microsoft.com/en-us/library/dd299457(v=exchg.80).aspx)>

Appendix B: Comparison of decompiled files and Android Exchange 2.3.7

Folder Compare

Produced: 6/7/2016 12:11:04 AM

Mode: All

Filters: *.java

Left base folder: ..\Android Exchange Source\Email-android-2.3.7_r1\src\com\android\exchange

Right base folder: ..\CoolPad Quattro Test Captures\Virtuous Ten

Studio\Projects\CP_Email\CP_Email\Misc\JavaSrc\com\android\exchange

| Name | Path | | Name | Path |
|---------------------------------|------------|--|---------------------------------|------------|
| AbstractSyncService.java | .\ | | AbstractSyncService.java | .\ |
| CalendarSyncAdapterService.java | .\ | | CalendarSyncAdapterService.java | .\ |
| CalendarSyncEnabler.java | .\ | | CalendarSyncEnabler.java | .\ |
| ContactsSyncAdapterService.java | .\ | | ContactsSyncAdapterService.java | .\ |
| Eas.java | .\ | | Eas.java | .\ |
| EasAuthenticationException.java | .\ | | EasAuthenticationException.java | .\ |
| EasException.java | .\ | | EasException.java | .\ |
| EasOutboxService.java | .\ | | EasOutboxService.java | .\ |
| EasSyncService.java | .\ | | EasSyncService.java | .\ |
| EmailSyncAlarmReceiver.java | .\ | | EmailSyncAlarmReceiver.java | .\ |
| IllegalHeartbeatException.java | .\ | | IllegalHeartbeatException.java | .\ |
| MailboxAlarmReceiver.java | .\ | | MailboxAlarmReceiver.java | .\ |
| MeetingResponseRequest.java | .\ | | MeetingResponseRequest.java | .\ |
| MockParserStream.java | .\ | | MockParserStream.java | .\ |
| PartRequest.java | .\ | | PartRequest.java | .\ |
| Request.java | .\ | | Request.java | .\ |
| SSLSocketFactory.java | .\ | | SSLSocketFactory.java | .\ |
| StaleFolderListException.java | .\ | | StaleFolderListException.java | .\ |
| SyncManager.java | .\ | | SyncManager.java | .\ |
| AbstractSyncAdapter.java | .\adapter\ | | AbstractSyncAdapter.java | .\adapter\ |
| AbstractSyncParser.java | .\adapter\ | | AbstractSyncParser.java | .\adapter\ |
| AccountSyncAdapter.java | .\adapter\ | | AccountSyncAdapter.java | .\adapter\ |
| CalendarSyncAdapter.java | .\adapter\ | | CalendarSyncAdapter.java | .\adapter\ |

| | | | |
|-----------------------------|-------------|-----------------------------|-------------|
| ContactsSyncAdapter.java | .\adapter\ | ContactsSyncAdapter.java | .\adapter\ |
| EmailSyncAdapter.java | .\adapter\ | EmailSyncAdapter.java | .\adapter\ |
| FolderSyncParser.java | .\adapter\ | FolderSyncParser.java | .\adapter\ |
| GalParser.java | .\adapter\ | GalParser.java | .\adapter\ |
| MeetingResponseParser.java | .\adapter\ | MeetingResponseParser.java | .\adapter\ |
| Parser.java | .\adapter\ | Parser.java | .\adapter\ |
| PingParser.java | .\adapter\ | PingParser.java | .\adapter\ |
| ProvisionParser.java | .\adapter\ | ProvisionParser.java | .\adapter\ |
| Serializer.java | .\adapter\ | Serializer.java | .\adapter\ |
| Tags.java | .\adapter\ | Tags.java | .\adapter\ |
| Wbxml.java | .\adapter\ | Wbxml.java | .\adapter\ |
| ExchangeProvider.java | .\provider\ | ExchangeProvider.java | .\provider\ |
| GalEmailAddressAdapter.java | .\provider\ | GalEmailAddressAdapter.java | .\provider\ |
| GalResult.java | .\provider\ | GalResult.java | .\provider\ |
| CalendarUtilities.java | .\utility\ | CalendarUtilities.java | .\utility\ |
| Duration.java | .\utility\ | Duration.java | .\utility\ |
| FileLogger.java | .\utility\ | FileLogger.java | .\utility\ |
| SimpleIcsWriter.java | .\utility\ | SimpleIcsWriter.java | .\utility\ |

Appendix C: Tags.java from https://android.googlesource.com/platform/packages/apps/Email/+android-2.0_r1/src/com/android/exchange/adapters/Tags.java#

```
1  /*
2   * Copyright (C) 2008-2009 Marc Blank
3   * Licensed to The Android Open Source Project.
4   *
5   * Licensed under the Apache License, Version 2.0 (the "License");
6   * you may not use this file except in compliance with the License.
7   * You may obtain a copy of the License at
8   *
9   *     http://www.apache.org/licenses/LICENSE-2.0
10  *
11  * Unless required by applicable law or agreed to in writing, software
12  * distributed under the License is distributed on an "AS IS" BASIS,
13  * WITHOUT WARRANTIES OR CONDITIONS OF ANY KIND, either express or implied.
14  * See the License for the specific language governing permissions and
15  * limitations under the License.
16  */
17
18 package com.android.exchange.adapters;
19
20 /**
21  * The wbxml tags for EAS are all defined here.
22  *
23  * The static final int's, of the form <page>_<tag> = <constant> are used in parsing incoming
24  * responses from the server (i.e. EasParser and its subclasses).
25  *
26  * The array of String arrays is used to construct server requests with EasSerializer. One thing
```

```
27  * we might do eventually is to "precompile" these requests, in part, although they should be
28  * fairly fast to begin with (each tag requires one HashMap lookup, and there aren't all that many
29  * of them in a given command).
30  *
31  */
32  public class Tags {
33
34      // Wbxml page definitions for EAS
35      public static final int AIRSYNC = 0x00;
36      public static final int CONTACTS = 0x01;
37      public static final int EMAIL = 0x02;
38      public static final int CALENDAR = 0x04;
39      public static final int MOVE = 0x05;
40      public static final int GIE = 0x06;
41      public static final int FOLDER = 0x07;
42      public static final int TASK = 0x09;
43      public static final int CONTACTS2 = 0x0C;
44      public static final int PING = 0x0D;
45      public static final int GAL = 0x10;
46      public static final int BASE = 0x11;
47
48      // Shift applied to page numbers to generate tag
49      public static final int PAGE_SHIFT = 6;
50      public static final int PAGE_MASK = 0x3F; // 6 bits
51
52      public static final int SYNC_PAGE = 0 << PAGE_SHIFT;
53      public static final int SYNC_SYNC = SYNC_PAGE + 5;
54      public static final int SYNC_RESPONSES = SYNC_PAGE + 6;
55      public static final int SYNC_ADD = SYNC_PAGE + 7;
56      public static final int SYNC_CHANGE = SYNC_PAGE + 8;
57      public static final int SYNC_DELETE = SYNC_PAGE + 9;
```

```
58 public static final int SYNC_FETCH = SYNC_PAGE + 0xA;
59 public static final int SYNC_SYNC_KEY = SYNC_PAGE + 0xB;
60 public static final int SYNC_CLIENT_ID = SYNC_PAGE + 0xC;
61 public static final int SYNC_SERVER_ID = SYNC_PAGE + 0xD;
62 public static final int SYNC_STATUS = SYNC_PAGE + 0xE;
63 public static final int SYNC_COLLECTION = SYNC_PAGE + 0xF;
64 public static final int SYNC_CLASS = SYNC_PAGE + 0x10;
65 public static final int SYNC_VERSION = SYNC_PAGE + 0x11;
66 public static final int SYNC_COLLECTION_ID = SYNC_PAGE + 0x12;
67 public static final int SYNC_GET_CHANGES = SYNC_PAGE + 0x13;
68 public static final int SYNC_MORE_AVAILABLE = SYNC_PAGE + 0x14;
69 public static final int SYNC_WINDOW_SIZE = SYNC_PAGE + 0x15;
70 public static final int SYNC_COMMANDS = SYNC_PAGE + 0x16;
71 public static final int SYNC_OPTIONS = SYNC_PAGE + 0x17;
72 public static final int SYNC_FILTER_TYPE = SYNC_PAGE + 0x18;
73 public static final int SYNC_TRUNCATION = SYNC_PAGE + 0x19;
74 public static final int SYNC_RTF_TRUNCATION = SYNC_PAGE + 0x1A;
75 public static final int SYNC_CONFLICT = SYNC_PAGE + 0x1B;
76 public static final int SYNC_COLLECTIONS = SYNC_PAGE + 0x1C;
77 public static final int SYNC_APPLICATION_DATA = SYNC_PAGE + 0x1D;
78 public static final int SYNC_DELETES_AS_MOVES = SYNC_PAGE + 0x1E;
79 public static final int SYNC_NOTIFY_GUID = SYNC_PAGE + 0x1F;
80 public static final int SYNC_SUPPORTED = SYNC_PAGE + 0x20;
81 public static final int SYNC_SOFT_DELETE = SYNC_PAGE + 0x21;
82 public static final int SYNC_MIME_SUPPORT = SYNC_PAGE + 0x22;
83 public static final int SYNC_MIME_TRUNCATION = SYNC_PAGE + 0x23;
84 public static final int SYNC_WAIT = SYNC_PAGE + 0x24;
85 public static final int SYNC_LIMIT = SYNC_PAGE + 0x25;
86 public static final int SYNC_PARTIAL = SYNC_PAGE + 0x26;
```

87

88

```
89     public static final int GIE_PAGE = GIE << PAGE_SHIFT;
90     public static final int GIE_GET_ITEM_ESTIMATE = GIE_PAGE + 5;
91     public static final int GIE_VERSION = GIE_PAGE + 6;
92     public static final int GIE_COLLECTIONS = GIE_PAGE + 7;
93     public static final int GIE_COLLECTION = GIE_PAGE + 8;
94     public static final int GIE_CLASS = GIE_PAGE + 9;
95     public static final int GIE_COLLECTION_ID = GIE_PAGE + 0xA;
96     public static final int GIE_DATE_TIME = GIE_PAGE + 0xB;
97     public static final int GIE_ESTIMATE = GIE_PAGE + 0xC;
98     public static final int GIE_RESPONSE = GIE_PAGE + 0xD;
99     public static final int GIE_STATUS = GIE_PAGE + 0xE;
100
101     public static final int CONTACTS_PAGE = CONTACTS << PAGE_SHIFT;
102     public static final int CONTACTS_ANNIVERSARY = CONTACTS_PAGE + 5;
103     public static final int CONTACTS_ASSISTANT_NAME = CONTACTS_PAGE + 6;
104     public static final int CONTACTS_ASSISTANT_TELEPHONE_NUMBER = CONTACTS_PAGE + 7;
105     public static final int CONTACTS_BIRTHDAY = CONTACTS_PAGE + 8;
106     public static final int CONTACTS_BODY = CONTACTS_PAGE + 9;
107     public static final int CONTACTS_BODY_SIZE = CONTACTS_PAGE + 0xA;
108     public static final int CONTACTS_BODY_TRUNCATED = CONTACTS_PAGE + 0xB;
109     public static final int CONTACTS_BUSINESS2_TELEPHONE_NUMBER = CONTACTS_PAGE + 0xC;
110     public static final int CONTACTS_BUSINESS_ADDRESS_CITY = CONTACTS_PAGE + 0xD;
111     public static final int CONTACTS_BUSINESS_ADDRESS_COUNTRY = CONTACTS_PAGE + 0xE;
112     public static final int CONTACTS_BUSINESS_ADDRESS_POSTAL_CODE = CONTACTS_PAGE + 0xF;
113     public static final int CONTACTS_BUSINESS_ADDRESS_STATE = CONTACTS_PAGE + 0x10;
114     public static final int CONTACTS_BUSINESS_ADDRESS_STREET = CONTACTS_PAGE + 0x11;
115     public static final int CONTACTS_BUSINESS_FAX_NUMBER = CONTACTS_PAGE + 0x12;
116     public static final int CONTACTS_BUSINESS_TELEPHONE_NUMBER = CONTACTS_PAGE + 0x13;
117     public static final int CONTACTS_CAR_TELEPHONE_NUMBER = CONTACTS_PAGE + 0x14;
118     public static final int CONTACTS_CATEGORIES = CONTACTS_PAGE + 0x15;
119     public static final int CONTACTS_CATEGORY = CONTACTS_PAGE + 0x16;
```



```
120 public static final int CONTACTS_CHILDREN = CONTACTS_PAGE + 0x17;
121 public static final int CONTACTS_CHILD = CONTACTS_PAGE + 0x18;
122 public static final int CONTACTS_COMPANY_NAME = CONTACTS_PAGE + 0x19;
123 public static final int CONTACTS_DEPARTMENT = CONTACTS_PAGE + 0x1A;
124 public static final int CONTACTS_EMAIL1_ADDRESS = CONTACTS_PAGE + 0x1B;
125 public static final int CONTACTS_EMAIL2_ADDRESS = CONTACTS_PAGE + 0x1C;
126 public static final int CONTACTS_EMAIL3_ADDRESS = CONTACTS_PAGE + 0x1D;
127 public static final int CONTACTS_FILE_AS = CONTACTS_PAGE + 0x1E;
128 public static final int CONTACTS_FIRST_NAME = CONTACTS_PAGE + 0x1F;
129 public static final int CONTACTS_HOME2_TELEPHONE_NUMBER = CONTACTS_PAGE + 0x20;
130 public static final int CONTACTS_HOME_ADDRESS_CITY = CONTACTS_PAGE + 0x21;
131 public static final int CONTACTS_HOME_ADDRESS_COUNTRY = CONTACTS_PAGE + 0x22;
132 public static final int CONTACTS_HOME_ADDRESS_POSTAL_CODE = CONTACTS_PAGE + 0x23;
133 public static final int CONTACTS_HOME_ADDRESS_STATE = CONTACTS_PAGE + 0x24;
134 public static final int CONTACTS_HOME_ADDRESS_STREET = CONTACTS_PAGE + 0x25;
135 public static final int CONTACTS_HOME_FAX_NUMBER = CONTACTS_PAGE + 0x26;
136 public static final int CONTACTS_HOME_TELEPHONE_NUMBER = CONTACTS_PAGE + 0x27;
137 public static final int CONTACTS_JOB_TITLE = CONTACTS_PAGE + 0x28;
138 public static final int CONTACTS_LAST_NAME = CONTACTS_PAGE + 0x29;
139 public static final int CONTACTS_MIDDLE_NAME = CONTACTS_PAGE + 0x2A;
140 public static final int CONTACTS_MOBILE_TELEPHONE_NUMBER = CONTACTS_PAGE + 0x2B;
141 public static final int CONTACTS_OFFICE_LOCATION = CONTACTS_PAGE + 0x2C;
142 public static final int CONTACTS_OTHER_ADDRESS_CITY = CONTACTS_PAGE + 0x2D;
143 public static final int CONTACTS_OTHER_ADDRESS_COUNTRY = CONTACTS_PAGE + 0x2E;
144 public static final int CONTACTS_OTHER_ADDRESS_POSTAL_CODE = CONTACTS_PAGE + 0x2F;
145 public static final int CONTACTS_OTHER_ADDRESS_STATE = CONTACTS_PAGE + 0x30;
146 public static final int CONTACTS_OTHER_ADDRESS_STREET = CONTACTS_PAGE + 0x31;
147 public static final int CONTACTS_PAGER_NUMBER = CONTACTS_PAGE + 0x32;
148 public static final int CONTACTS_RADIO_TELEPHONE_NUMBER = CONTACTS_PAGE + 0x33;
149 public static final int CONTACTS_SPOUSE = CONTACTS_PAGE + 0x34;
150 public static final int CONTACTS_SUFFIX = CONTACTS_PAGE + 0x35;
```

```
151 public static final int CONTACTS_TITLE = CONTACTS_PAGE + 0x36;
152 public static final int CONTACTS_WEBPAGE = CONTACTS_PAGE + 0x37;
153 public static final int CONTACTS_YOMI_COMPANY_NAME = CONTACTS_PAGE + 0x38;
154 public static final int CONTACTS_YOMI_FIRST_NAME = CONTACTS_PAGE + 0x39;
155 public static final int CONTACTS_YOMI_LAST_NAME = CONTACTS_PAGE + 0x3A;
156 public static final int CONTACTS_COMPRESSED_RTF = CONTACTS_PAGE + 0x3B;
157 public static final int CONTACTS_PICTURE = CONTACTS_PAGE + 0x3C;
158
159 public static final int CALENDAR_PAGE = CALENDAR << PAGE_SHIFT;
160 public static final int CALENDAR_TIME_ZONE = CALENDAR_PAGE + 5;
161 public static final int CALENDAR_ALL_DAY_EVENT = CALENDAR_PAGE + 6;
162 public static final int CALENDAR_ATTENDEES = CALENDAR_PAGE + 7;
163 public static final int CALENDAR_ATTENDEE = CALENDAR_PAGE + 8;
164 public static final int CALENDAR_ATTENDEE_EMAIL = CALENDAR_PAGE + 9;
165 public static final int CALENDAR_ATTENDEE_NAME = CALENDAR_PAGE + 0xA;
166 public static final int CALENDAR_BODY = CALENDAR_PAGE + 0xB;
167 public static final int CALENDAR_BODY_TRUNCATED = CALENDAR_PAGE + 0xC;
168 public static final int CALENDAR_BUSY_STATUS = CALENDAR_PAGE + 0xD;
169 public static final int CALENDAR_CATEGORIES = CALENDAR_PAGE + 0xE;
170 public static final int CALENDAR_CATEGORY = CALENDAR_PAGE + 0xF;
171 public static final int CALENDAR_COMPRESSED_RTF = CALENDAR_PAGE + 0x10;
172 public static final int CALENDAR_DTSTAMP = CALENDAR_PAGE + 0x11;
173 public static final int CALENDAR_END_TIME = CALENDAR_PAGE + 0x12;
174 public static final int CALENDAR_EXCEPTION = CALENDAR_PAGE + 0x13;
175 public static final int CALENDAR_EXCEPTIONS = CALENDAR_PAGE + 0x14;
176 public static final int CALENDAR_EXCEPTION_IS_DELETED = CALENDAR_PAGE + 0x15;
177 public static final int CALENDAR_EXCEPTION_START_TIME = CALENDAR_PAGE + 0x16;
178 public static final int CALENDAR_LOCATION = CALENDAR_PAGE + 0x17;
179 public static final int CALENDAR_MEETING_STATUS = CALENDAR_PAGE + 0x18;
180 public static final int CALENDAR_ORGANIZER_EMAIL = CALENDAR_PAGE + 0x19;
181 public static final int CALENDAR_ORGANIZER_NAME = CALENDAR_PAGE + 0x1A;
```

```
182 public static final int CALENDAR_RECURRENCE = CALENDAR_PAGE + 0x1B;
183 public static final int CALENDAR_RECURRENCE_TYPE = CALENDAR_PAGE + 0x1C;
184 public static final int CALENDAR_RECURRENCE_UNTIL = CALENDAR_PAGE + 0x1D;
185 public static final int CALENDAR_RECURRENCE_OCCURRENCES = CALENDAR_PAGE + 0x1E;
186 public static final int CALENDAR_RECURRENCE_INTERVAL = CALENDAR_PAGE + 0x1F;
187 public static final int CALENDAR_RECURRENCE_DAYOFWEEK = CALENDAR_PAGE + 0x20;
188 public static final int CALENDAR_RECURRENCE_DAYOFMONTH = CALENDAR_PAGE + 0x21;
189 public static final int CALENDAR_RECURRENCE_WEEKOFMONTH = CALENDAR_PAGE + 0x22;
190 public static final int CALENDAR_RECURRENCE_MONTHOFYEAR = CALENDAR_PAGE + 0x23;
191 public static final int CALENDAR_REMINDER_MINS_BEFORE = CALENDAR_PAGE + 0x24;
192 public static final int CALENDAR_SENSITIVITY = CALENDAR_PAGE + 0x25;
193 public static final int CALENDAR_SUBJECT = CALENDAR_PAGE + 0x26;
194 public static final int CALENDAR_START_TIME = CALENDAR_PAGE + 0x27;
195 public static final int CALENDAR_UID = CALENDAR_PAGE + 0x28;
196 public static final int CALENDAR_ATTENDEE_STATUS = CALENDAR_PAGE + 0x29;
197 public static final int CALENDAR_ATTENDEE_TYPE = CALENDAR_PAGE + 0x2A;
198
199 public static final int FOLDER_PAGE = FOLDER << PAGE_SHIFT;
200 public static final int FOLDER_FOLDERS = FOLDER_PAGE + 5;
201 public static final int FOLDER_FOLDER = FOLDER_PAGE + 6;
202 public static final int FOLDER_DISPLAY_NAME = FOLDER_PAGE + 7;
203 public static final int FOLDER_SERVER_ID = FOLDER_PAGE + 8;
204 public static final int FOLDER_PARENT_ID = FOLDER_PAGE + 9;
205 public static final int FOLDER_TYPE = FOLDER_PAGE + 0xA;
206 public static final int FOLDER_RESPONSE = FOLDER_PAGE + 0xB;
207 public static final int FOLDER_STATUS = FOLDER_PAGE + 0xC;
208 public static final int FOLDER_CONTENT_CLASS = FOLDER_PAGE + 0xD;
209 public static final int FOLDER_CHANGES = FOLDER_PAGE + 0xE;
210 public static final int FOLDER_ADD = FOLDER_PAGE + 0xF;
211 public static final int FOLDER_DELETE = FOLDER_PAGE + 0x10;
212 public static final int FOLDER_UPDATE = FOLDER_PAGE + 0x11;
```

```
213     public static final int FOLDER_SYNC_KEY = FOLDER_PAGE + 0x12;
214     public static final int FOLDER_FOLDER_CREATE = FOLDER_PAGE + 0x13;
215     public static final int FOLDER_FOLDER_DELETE = FOLDER_PAGE + 0x14;
216     public static final int FOLDER_FOLDER_UPDATE = FOLDER_PAGE + 0x15;
217     public static final int FOLDER_FOLDER_SYNC = FOLDER_PAGE + 0x16;
218     public static final int FOLDER_COUNT = FOLDER_PAGE + 0x17;
219     public static final int FOLDER_VERSION = FOLDER_PAGE + 0x18;
220
221     public static final int EMAIL_PAGE = EMAIL << PAGE_SHIFT;
222     public static final int EMAIL_ATTACHMENT = EMAIL_PAGE + 5;
223     public static final int EMAIL_ATTACHMENTS = EMAIL_PAGE + 6;
224     public static final int EMAIL_ATT_NAME = EMAIL_PAGE + 7;
225     public static final int EMAIL_ATT_SIZE = EMAIL_PAGE + 8;
226     public static final int EMAIL_ATT_ID = EMAIL_PAGE + 9;
227     public static final int EMAIL_ATT_METHOD = EMAIL_PAGE + 0xA;
228     public static final int EMAIL_ATT_REMOVED = EMAIL_PAGE + 0xB;
229     public static final int EMAIL_BODY = EMAIL_PAGE + 0xC;
230     public static final int EMAIL_BODY_SIZE = EMAIL_PAGE + 0xD;
231     public static final int EMAIL_BODY_TRUNCATED = EMAIL_PAGE + 0xE;
232     public static final int EMAIL_DATE_RECEIVED = EMAIL_PAGE + 0xF;
233     public static final int EMAIL_DISPLAY_NAME = EMAIL_PAGE + 0x10;
234     public static final int EMAIL_DISPLAY_TO = EMAIL_PAGE + 0x11;
235     public static final int EMAIL_IMPORTANCE = EMAIL_PAGE + 0x12;
236     public static final int EMAIL_MESSAGE_CLASS = EMAIL_PAGE + 0x13;
237     public static final int EMAIL_SUBJECT = EMAIL_PAGE + 0x14;
238     public static final int EMAIL_READ = EMAIL_PAGE + 0x15;
239     public static final int EMAIL_TO = EMAIL_PAGE + 0x16;
240     public static final int EMAIL_CC = EMAIL_PAGE + 0x17;
241     public static final int EMAIL_FROM = EMAIL_PAGE + 0x18;
242     public static final int EMAIL_REPLY_TO = EMAIL_PAGE + 0x19;
243     public static final int EMAIL_ALL_DAY_EVENT = EMAIL_PAGE + 0x1A;
```

```
244 public static final int EMAIL_CATEGORIES = EMAIL_PAGE + 0x1B;
245 public static final int EMAIL_CATEGORY = EMAIL_PAGE + 0x1C;
246 public static final int EMAIL_DTSTAMP = EMAIL_PAGE + 0x1D;
247 public static final int EMAIL_END_TIME = EMAIL_PAGE + 0x1E;
248 public static final int EMAIL_INSTANCE_TYPE = EMAIL_PAGE + 0x1F;
249 public static final int EMAIL_INTD_BUSY_STATUS = EMAIL_PAGE + 0x20;
250 public static final int EMAIL_LOCATION = EMAIL_PAGE + 0x21;
251 public static final int EMAIL_MEETING_REQUEST = EMAIL_PAGE + 0x22;
252 public static final int EMAIL_ORGANIZER = EMAIL_PAGE + 0x23;
253 public static final int EMAIL_RECURRENCE_ID = EMAIL_PAGE + 0x24;
254 public static final int EMAIL_REMINDER = EMAIL_PAGE + 0x25;
255 public static final int EMAIL_RESPONSE_REQUESTED = EMAIL_PAGE + 0x26;
256 public static final int EMAIL_RECURRENCES = EMAIL_PAGE + 0x27;
257 public static final int EMAIL_RECURRENCE = EMAIL_PAGE + 0x28;
258 public static final int EMAIL_RECURRENCE_TYPE = EMAIL_PAGE + 0x29;
259 public static final int EMAIL_RECURRENCE_UNTIL = EMAIL_PAGE + 0x2A;
260 public static final int EMAIL_RECURRENCE_OCCURRENCES = EMAIL_PAGE + 0x2B;
261 public static final int EMAIL_RECURRENCE_INTERVAL = EMAIL_PAGE + 0x2C;
262 public static final int EMAIL_RECURRENCE_DAYOFWEEK = EMAIL_PAGE + 0x2D;
263 public static final int EMAIL_RECURRENCE_DAYOFMONTH = EMAIL_PAGE + 0x2E;
264 public static final int EMAIL_RECURRENCE_WEEKOFMONTH = EMAIL_PAGE + 0x2F;
265 public static final int EMAIL_RECURRENCE_MONTHOFYEAR = EMAIL_PAGE + 0x30;
266 public static final int EMAIL_START_TIME = EMAIL_PAGE + 0x31;
267 public static final int EMAIL_SENSITIVITY = EMAIL_PAGE + 0x32;
268 public static final int EMAIL_TIME_ZONE = EMAIL_PAGE + 0x33;
269 public static final int EMAIL_GLOBAL_OBJID = EMAIL_PAGE + 0x34;
270 public static final int EMAIL_THREAD_TOPIC = EMAIL_PAGE + 0x35;
271 public static final int EMAIL_MIME_DATA = EMAIL_PAGE + 0x36;
272 public static final int EMAIL_MIME_TRUNCATED = EMAIL_PAGE + 0x37;
273 public static final int EMAIL_MIME_SIZE = EMAIL_PAGE + 0x38;
274 public static final int EMAIL_INTERNET_CPID = EMAIL_PAGE + 0x39;
```

```
275     public static final int EMAIL_FLAG = EMAIL_PAGE + 0x3A;
276     public static final int EMAIL_FLAG_STATUS = EMAIL_PAGE + 0x3B;
277     public static final int EMAIL_CONTENT_CLASS = EMAIL_PAGE + 0x3C;
278     public static final int EMAIL_FLAG_TYPE = EMAIL_PAGE + 0x3D;
279     public static final int EMAIL_COMPLETE_TIME = EMAIL_PAGE + 0x3E;
280
281     public static final int TASK_PAGE = TASK << PAGE_SHIFT;
282     public static final int TASK_BODY = TASK_PAGE + 5;
283     public static final int TASK_BODY_SIZE = TASK_PAGE + 6;
284     public static final int TASK_BODY_TRUNCATED = TASK_PAGE + 7;
285     public static final int TASK_CATEGORIES = TASK_PAGE + 8;
286     public static final int TASK_CATEGORY = TASK_PAGE + 9;
287     public static final int TASK_COMPLETE = TASK_PAGE + 0xA;
288     public static final int TASK_DATE_COMPLETED = TASK_PAGE + 0xB;
289     public static final int TASK_DUE_DATE = TASK_PAGE + 0xC;
290     public static final int TASK_UTC_DUE_DATE = TASK_PAGE + 0xD;
291     public static final int TASK_IMPORTANCE = TASK_PAGE + 0xE;
292     public static final int TASK_RECURRENCE = TASK_PAGE + 0xF;
293     public static final int TASK_RECURRENCE_TYPE = TASK_PAGE + 0x10;
294     public static final int TASK_RECURRENCE_START = TASK_PAGE + 0x11;
295     public static final int TASK_RECURRENCE_UNTIL = TASK_PAGE + 0x12;
296     public static final int TASK_RECURRENCE_OCCURRENCES = TASK_PAGE + 0x13;
297     public static final int TASK_RECURRENCE_INTERVAL = TASK_PAGE + 0x14;
298     public static final int TASK_RECURRENCE_DAY_OF_MONTH = TASK_PAGE + 0x15;
299     public static final int TASK_RECURRENCE_DAY_OF_WEEK = TASK_PAGE + 0x16;
300     public static final int TASK_RECURRENCE_WEEK_OF_MONTH = TASK_PAGE + 0x17;
301     public static final int TASK_RECURRENCE_MONTH_OF_YEAR = TASK_PAGE + 0x18;
302     public static final int TASK_RECURRENCE_REGENERATE = TASK_PAGE + 0x19;
303     public static final int TASK_RECURRENCE_DEAD_OCCUR = TASK_PAGE + 0x1A;
304     public static final int TASK_REMINDER_SET = TASK_PAGE + 0x1B;
305     public static final int TASK_REMINDER_TIME = TASK_PAGE + 0x1C;
```

```
306 public static final int TASK_SENSITIVITY = TASK_PAGE + 0x1D;
307 public static final int TASK_START_DATE = TASK_PAGE + 0x1E;
308 public static final int TASK_UTC_START_DATE = TASK_PAGE + 0x1F;
309 public static final int TASK_SUBJECT = TASK_PAGE + 0x20;
310 public static final int COMPRESSED_RTF = TASK_PAGE + 0x21;
311 public static final int ORDINAL_DATE = TASK_PAGE + 0x22;
312 public static final int SUBORDINAL_DATE = TASK_PAGE + 0x23;
313
314 public static final int MOVE_PAGE = MOVE << PAGE_SHIFT;
315 public static final int MOVE_MOVE_ITEMS = MOVE_PAGE + 5;
316 public static final int MOVE_MOVE = MOVE_PAGE + 6;
317 public static final int MOVE_SRCMSGID = MOVE_PAGE + 7;
318 public static final int MOVE_SRCFLDID = MOVE_PAGE + 8;
319 public static final int MOVE_DSTFLDID = MOVE_PAGE + 9;
320 public static final int MOVE_RESPONSE = MOVE_PAGE + 0xA;
321 public static final int MOVE_STATUS = MOVE_PAGE + 0xB;
322 public static final int MOVE_DSTMSGID = MOVE_PAGE + 0xC;
323
324 public static final int CONTACTS2_PAGE = CONTACTS2 << PAGE_SHIFT;
325 public static final int CONTACTS2_CUSTOMER_ID = CONTACTS2_PAGE + 5;
326 public static final int CONTACTS2_GOVERNMENT_ID = CONTACTS2_PAGE + 6;
327 public static final int CONTACTS2_IM_ADDRESS = CONTACTS2_PAGE + 7;
328 public static final int CONTACTS2_IM_ADDRESS_2 = CONTACTS2_PAGE + 8;
329 public static final int CONTACTS2_IM_ADDRESS_3 = CONTACTS2_PAGE + 9;
330 public static final int CONTACTS2_MANAGER_NAME = CONTACTS2_PAGE + 0xA;
331 public static final int CONTACTS2_COMPANY_MAIN_PHONE = CONTACTS2_PAGE + 0xB;
332 public static final int CONTACTS2_ACCOUNT_NAME = CONTACTS2_PAGE + 0xC;
333 public static final int CONTACTS2_NICKNAME = CONTACTS2_PAGE + 0xD;
334 public static final int CONTACTS2_MMS = CONTACTS2_PAGE + 0xE;
335
336 // The Ping constants are used by EasSyncService, and need to be public
```

```
337 public static final int PING_PAGE = PING << PAGE_SHIFT;
338 public static final int PING_PING = PING_PAGE + 5;
339 public static final int PING_AUTD_STATE = PING_PAGE + 6;
340 public static final int PING_STATUS = PING_PAGE + 7;
341 public static final int PING_HEARTBEAT_INTERVAL = PING_PAGE + 8;
342 public static final int PING_FOLDERS = PING_PAGE + 9;
343 public static final int PING_FOLDER = PING_PAGE + 0xA;
344 public static final int PING_ID = PING_PAGE + 0xB;
345 public static final int PING_CLASS = PING_PAGE + 0xC;
346 public static final int PING_MAX_FOLDERS = PING_PAGE + 0xD;
347
348 public static final int BASE_PAGE = BASE << PAGE_SHIFT;
349 public static final int BASE_BODY_PREFERENCE = BASE_PAGE + 5;
350 public static final int BASE_TYPE = BASE_PAGE + 6;
351 public static final int BASE_TRUNCATION_SIZE = BASE_PAGE + 7;
352 public static final int BASE_ALL_OR_NONE = BASE_PAGE + 8;
353 public static final int BASE_RESERVED = BASE_PAGE + 9;
354 public static final int BASE_BODY = BASE_PAGE + 0xA;
355 public static final int BASE_DATA = BASE_PAGE + 0xB;
356 public static final int BASE_ESTIMATED_DATA_SIZE = BASE_PAGE + 0xC;
357 public static final int BASE_TRUNCATED = BASE_PAGE + 0xD;
358 public static final int BASE_ATTACHMENTS = BASE_PAGE + 0xE;
359 public static final int BASE_ATTACHMENT = BASE_PAGE + 0xF;
360 public static final int BASE_DISPLAY_NAME = BASE_PAGE + 0x10;
361 public static final int BASE_FILE_REFERENCE = BASE_PAGE + 0x11;
362 public static final int BASE_METHOD = BASE_PAGE + 0x12;
363 public static final int BASE_CONTENT_ID = BASE_PAGE + 0x13;
364 public static final int BASE_CONTENT_LOCATION = BASE_PAGE + 0x14;
365 public static final int BASE_IS_INLINE = BASE_PAGE + 0x15;
366 public static final int BASE_NATIVE_BODY_TYPE = BASE_PAGE + 0x16;
367 public static final int BASE_CONTENT_TYPE = BASE_PAGE + 0x17;
```



```

368
369 static public String[][] pages = {
370     { // 0x00 AirSync
371         "Sync", "Responses", "Add", "Change", "Delete", "Fetch", "SyncKey", "ClientId",
372         "ServerId", "Status", "Collection", "Class", "Version", "CollectionId", "GetChanges",
373         "MoreAvailable", "WindowSize", "Commands", "Options", "FilterType", "Truncation",
374         "RTFTruncation", "Conflict", "Collections", "ApplicationData", "DeletesAsMoves",
375         "NotifyGUID", "Supported", "SoftDelete", "MIMESupport", "MIMETruncation", "Wait",
376         "Limit", "Partial"
377     },
378     {
379         // 0x01 Contacts
380         "Anniversary", "AssistantName", "AssistantTelephoneNumber", "Birthday", "ContactsBody",
381         "ContactsBodySize", "ContactsBodyTruncated", "Business2TelephoneNumber",
382         "BusinessAddressCity",
383         "BusinessAddressCountry", "BusinessAddressPostalCode", "BusinessAddressState",
384         "BusinessAddressStreet", "BusinessFaxNumber", "BusinessTelephoneNumber",
385         "CarTelephoneNumber", "ContactsCategories", "ContactsCategory", "Children", "Child",
386         "CompanyName", "Department", "Email1Address", "Email2Address", "Email3Address",
387         "FileAs", "FirstName", "Home2TelephoneNumber", "HomeAddressCity", "HomeAddressCountry",
388         "HomeAddressPostalCode", "HomeAddressState", "HomeAddressStreet", "HomeFaxNumber",
389         "HomeTelephoneNumber", "JobTitle", "LastName", "MiddleName", "MobileTelephoneNumber",
390         "OfficeLocation", "OtherAddressCity", "OtherAddressCountry",
391         "OtherAddressPostalCode", "OtherAddressState", "OtherAddressStreet", "PagerNumber",
392         "RadioTelephoneNumber", "Spouse", "Suffix", "Title", "Webpage", "YomiCompanyName",
393         "YomiFirstName", "YomiLastName", "CompressedRTF", "Picture"
394     },
395     {
396         // 0x02 Email
397         "Attachment", "Attachments", "AttName", "AttSize", "Add0Id", "AttMethod", "AttRemoved",
398         "Body", "BodySize", "BodyTruncated", "DateReceived", "DisplayName", "DisplayTo",

```

```

399     "Importance", "MessageClass", "Subject", "Read", "To", "CC", "From", "ReplyTo",
400     "AllDayEvent", "Categories", "Category", "DTStamp", "EndTime", "InstanceType",
401     "IntDBusyStatus", "Location", "MeetingRequest", "Organizer", "RecurrenceId", "Reminder",
402     "ResponseRequested", "Recurrences", "Recurrence", "Recurrence_Type", "Recurrence_Until",
403     "Recurrence_Occurrences", "Recurrence_Interval", "Recurrence_DayOfWeek",
404     "Recurrence_DayOfMonth", "Recurrence_WeekOfMonth", "Recurrence_MonthOfYear",
405     "StartTime", "Sensitivity", "TimeZone", "GlobalObjId", "ThreadTopic", "MIMEData",
406     "MIMETruncated", "MIMESize", "InternetCPID", "Flag", "FlagStatus", "EmailContentClass",
407     "FlagType", "CompleteTime"
408 },
409 {
410     // 0x03 AirNotify
411 },
412 {
413     // 0x04 Calendar
414     "CalTimeZone", "CalAllDayEvent", "CalAttendees", "CalAttendee", "CalAttendee_Email",
415     "CalAttendee_Name", "CalBody", "CalBodyTruncated", "CalBusyStatus", "CalCategories",
416     "CalCategory", "CalCompressed_RTF", "CalDTStamp", "CalEndTime", "CalExeption",
417     "CalExceptions", "CalException_IsDeleted", "CalException_StartTime", "CalLocation",
418     "CalMeetingStatus", "CalOrganizer_Email", "CalOrganizer_Name", "CalRecurrence",
419     "CalRecurrence_Type", "CalRecurrence_Until", "CalRecurrence_Occurrences",
420     "CalRecurrence_Interval", "CalRecurrence_DayOfWeek", "CalRecurrence_DayOfMonth",
421     "CalRecurrence_WeekOfMonth", "CalRecurrence_MonthOfYear", "CalReminder_MinsBefore",
422     "CalSensitivity", "CalSubject", "CalStartTime", "CalUID", "CalAttendee_Status",
423     "CalAttendee_Type"
424 },
425 {
426     // 0x05 Move
427     "MoveItems", "Move", "SrcMsgId", "SrcFldId", "DstFldId", "MoveResponse", "MoveStatus",
428     "DstMsgId"
429 },

```

```
430     {
431         // 0x06 ItemEstimate
432         "GetItemEstimate", "Version", "Collection", "Collection", "Class", "CollectionId",
433         "DateTime", "Estimate", "Response", "Status"
434     },
435     {
436         // 0x07 FolderHierarchy
437         "Folders", "Folder", "FolderDisplayName", "FolderServerId", "FolderParentId", "Type",
438         "FolderResponse", "FolderStatus", "FolderContentClass", "Changes", "FolderAdd",
439         "FolderDelete", "FolderUpdate", "FolderSyncKey", "FolderFolderCreate",
440         "FolderFolderDelete", "FolderFolderUpdate", "FolderSync", "Count", "FolderVersion"
441     },
442     {
443         // 0x08 MeetingResponse
444     },
445     {
446         // 0x09 Tasks
447         "Body", "BodySize", "BodyTruncated", "Categories", "Category", "Complete",
448         "DateCompleted", "DueDate", "UTCDueDate", "Importance", "Recurrence", "RecurrenceType",
449         "RecurrenceStart", "RecurrenceUntil", "RecurrenceOccurrences", "RecurrenceInterval",
450         "RecurrenceDOM", "RecurrenceDOW", "RecurrenceWOM", "RecurrenceMOY",
451         "RecurrenceRegenerate", "RecurrenceDeadOccur", "ReminderSet", "ReminderTime",
452         "Sensitivity", "StartDate", "UTCStartDate", "Subject", "CompressedRTF", "OrdinalDate",
453         "SubordinalDate"
454     },
455     {
456         // 0x0A ResolveRecipients
457     },
458     {
459         // 0x0B ValidateCert
460     },
```

```

461     {
462         // 0x0C Contacts2
463         "CustomerId", "GovernmentId", "IMAddress", "IMAddress2", "IMAddress3", "ManagerName",
464         "CompanyMainPhone", "AccountName", "NickName", "MMS"
465     },
466     {
467         // 0x0D Ping
468         "Ping", "AutdState", "PingStatus", "HeartbeatInterval", "PingFolders", "PingFolder",
469         "PingId", "PingClass", "MaxFolders"
470     },
471     {
472         // 0x0E Provision
473         "Provision", "Policies", "Policy", "PolicyType", "PolicyKey", "Data", "ProvisionStatus",
474         "RemoteWipe", "EASProvidionDoc", "DevicePasswordEnabled",
475         "AlphanumericDevicePasswordRequired",
476         "DeviceEncryptionEnabled", "-unused-", "AttachmentsEnabled", "MinDevicePasswordLength",
477         "MaxInactivityTimeDeviceLock", "MaxDevicePasswordFailedAttempts", "MaxAttachmentSize",
478         "AllowSimpleDevicePassword", "DevicePasswordExpiration", "DevicePasswordHistory",
479         "AllowStorageCard", "AllowCamera", "RequireDeviceEncryption",
480         "AllowUnsignedApplications", "AllowUnsignedInstallationPackages",
481         "MinDevicePasswordComplexCharacters", "AllowWiFi", "AllowTextMessaging",
482         "AllowPOPIMAPEmail", "AllowBluetooth", "AllowIrDA", "RequireManualSyncWhenRoaming",
483         "AllowDesktopSync",
484         "MaxCalendarAgeFilder", "AllowHTMLEmail", "MaxEmailAgeFilder",
485         "MaxEmailBodyTruncationSize", "MaxEmailHTMLBodyTruncationSize",
486         "RequireSignedSMIMEessages", "RequireEncryptedSMIMEessages",
487         "RequireSignedSMIMEAlgorithm", "RequireEncryptionSMIMEAlgorithm",
488         "AllowSMIMEEncryptionAlgorithmNegotiation", "AllowSMIMESoftCerts", "AllowBrowser",
489         "AllowConsumerEmail", "AllowRemoteDesktop", "AllowInternetSharing",
490         "UnapprovedInROMApplicationList", "ApplicationName", "ApprovedApplicationList", "Hash"
491     },

```

```
492     {
493         // 0x0F Search
494     },
495     {
496         // 0x10 Gal
497         "GalDisplayName", "GalPhone", "GalOffice", "GalTitle", "GalCompany", "GalAlias",
498         "GalFirstName", "GalLastName", "GalHomePhone", "GalMobilePhone", "GalEmailAddress"
499     },
500     {
501         // 0x11 AirSyncBase
502         "BodyPreference", "BodyPreferenceType", "BodyPreferenceTruncationSize", "AllOrNone",
503         "--unused--", "BaseBody", "BaseData", "BaseEstimatedDataSize", "BaseTruncated",
504         "BaseAttachments", "BaseAttachment", "BaseDisplayName", "FileReference", "BaseMethod",
505         "BaseContentId", "BaseContentLocation", "BaseIsInline", "BaseNativeBodyType",
506         "BaseContentType"
507     },
508     {
509         // 0x12 Settings
510     },
511     {
512         // 0x13 DocumentLibrary
513     },
514     {
515         // 0x14 ItemOperations
516     }
517 };
518 }
```